

IN THE CLAIMS

1. (Currently Amended) A nanocomposite composition comprising a matrix polymer selected from a polyamide and a polyester; and platelet particles exfoliated in the matrix polymer, wherein the platelet particles are dispersed in a matrix polymer-compatible oligomeric resin selected from a the group consisting of polyamides and a polyesters, and wherein the platelet particle oligomeric resin is incorporated into the matrix polymer.

[[3]] 2. (Currently Amended) The nanocomposite composition according to claim 1, wherein the platelet particle oligomeric resin is a nylon polymer.

[[4]] 3. (Currently Amended) The nanocomposite composition according to claim 2 1, wherein the platelet particle oligomeric resin is ~~MXD6~~ polyamide poly(m-xylyladipamide) nylon.

[[5]] 4. (Currently Amended) The nanocomposite composition according to claim 1, wherein the matrix polymer is a polyamide.

[[6]] 5. (Currently Amended) The nanocomposite composition according to claim 5 4, wherein the matrix polymer is ~~MXD6~~ polyamide poly(m-xylyladipamide) nylon and the platelet particle oligomeric resin is ~~MDX6~~ polyamide poly(m-xylyladipamide) nylon.

[[7]] 6. (Currently Amended) The nanocomposite composition according to claim 1, wherein the matrix polymer is ~~MXD6~~ polyamide poly(m-xylyladipamide) nylon and the platelet particle oligomeric resin is poly(ethylene terephthalate).

[[8]] 7. (Currently Amended) The nanocomposite composition according to claim 1, wherein the matrix polymer is a polyester.

[[9]] 8. (Currently Amended) The nanocomposite composition according to claim 8 7, wherein the matrix polymer is poly(ethylene terephthalate) and the platelet particle oligomeric resin is ~~MXD6~~ polyamide poly(m-xylyladipamide) nylon.

[[10]] 9. (Currently Amended) The nanocomposite composition according to claim 8 7, wherein the matrix polymer is poly(ethylene terephthalate) and the platelet particle oligomeric resin is poly(ethylene terephthalate).

[[11]] 10. (Currently Amended) The nanocomposite**[[s]]** composition according to claim 1, wherein the platelet particles are derived from an organic or inorganic clay material.

[[12]] 11. (Currently Amended) The nanocomposite composition according to claim 1, comprising from 0.5% to about 25% by weight of platelet particles ~~exfoliated~~ exfoliated in a matrix polymer, the platelet particles being derived from an organic or inorganic clay material and dispersed in a matrix polymer-compatible oligomeric resin, wherein the matrix polymer is present in an amount from about 75% by weight to about 99.55% by weight of the nanocomposite composition and is the reaction product of meta-xylylene diamine and a dicarboxylic acid.

[[13]] 12. (Currently Amended) The nanocomposite composition according to claim 42 11, wherein the matrix polymer is intercalated into the clay material prior to dispersing the clay material throughout the matrix polymer.

[[15]] 13. (Currently Amended) A method of decreasing oxygen permeability of a film or sheet of a matrix polymer comprising dispersing throughout said matrix polymer an intercalate, in an amount from about 0.5% by weight to about 25% by weight, based on the total weight of the film or sheet material and the intercalate, the intercalate

formed by treating a layered clay material with organic cations to form an organoclay, wherein said matrix polymer is a polymer or oligomer formed from the reaction product of a meta-xylylene diamine and a dicarboxylic acid, such that a portion of the matrix polymer is co-intercalated between the layers of the organoclay.

[[16]] 14. (Currently Amended) A method according to claim ~~45~~13, wherein the matrix polymer is an oxygen scavenger.

[[17]] 15. (Currently Amended) A method according to claim ~~45~~ 13, wherein the matrix polymer is co-intercalated into the layered clay material prior to dispersing the layered clay material throughout the matrix polymer.

[[18]] 16. (Currently Amended) A method according to claim ~~45~~ 13, wherein the matrix polymer is a polymer or oligomer of the reaction product of meta-xylylene diamine and adipic acid.

[[19]] 17. (Currently Amended) A method of manufacturing a composite material containing about 75% to 99.5% by weight of a matrix polymer comprising a polymer or oligomer of a reaction product of meta-xylylene diamine and a dicarboxylic acid, and about 0.5% to about 25% by weight of an intercalated clay material comprising:

contacting the clay material with an organic cation salt, to achieve intercalation of said organic cation salt between adjacent clay platelets; and

dispersing the intercalated clay material throughout said matrix polymer to achieve intercalation of a portion of the matrix polymer between the clay platelets.

[[20]] 18. (Currently Amended) The method according to claim ~~49~~17, wherein the reaction product of meta-xylylene diamine and a dicarboxylic acid is ~~MXD6~~ polyamide

poly(m-xylyladipamide) nylon and wherein the matrix polymer is MXD6 polyamide poly
(m-xylyladipamide) nylon.